Saskowski, Ronald

From: Seadler, Donna
Sent: Wednesday, January 07, 2015 9:53 AM
To: Saskowski, Ronald
Subject: Filing: Email with attachment - Lee's Lane Landfill file
Attachments: 9-25-14 LMSD_Fall 14.xlsx

From: Heather Dodds [mailto:heather.dodds@louisvillemsd.org]
Sent: Wednesday, November 26, 2014 12:57 PM
To: Seadler, Donna
Cc: Tony Marconi
Subject: FW: LMSD - September Lee Lane Landfill Semi-Annual Sample Collection - Preliminary Results (for Discussion)

Donna -

I apologize for the delay in getting this information to you after we spoke on the phone, I have been trying to confirm what our consultant is proposing to validate / invalidate this sample set.

See attached spreadsheet and details below. URS is proposing that they resample the three highest ambient locations (U1, U2, and R2) for benzene and toluene to determine if the results are valid. Please advise if this is an acceptable course of action or if we need to do something different. Thanks -

Heather

From: Jongleux, Bob [mailto:bob.jongleux@urs.com]
Sent: Monday, November 17, 2014 3:54 PM
To: Heather Dodds
Cc: Jongleux, Bob; Davis, Chris (Louisville)
Subject: LMSD - September Lee Lane Landfill Semi-Annual Sample Collection - Preliminary Results (for Discussion)

Heather - The following QA/QC steps have been undertaken for the LMSD – Lee Lane Landfill project for the September – Semi-annual collection to resolve higher than usual levels of BTX (benzene/ toluene and xylenes) being reported in the field samples and field blank. A *preliminary summary (not final)* is attached for *informational (not to be distributed)* purposes.
Red highlights identify samples and analytes of concern in the attached spreadsheet.

- Canisters, Sample Flow Controllers, Sampling canes were all blank checked to <0.20 ppb cleanliness.
- A confirmation analysis was performed on the blank canister, data confirmed
- An analysis was performed on the Helium gas used to pressurize the canisters – Helium was clean at <0.20 ppb.
- Data interoperations was done on the canister samples – there appears not to be a contamination trend
- Vacuum gauge used on the field blank was received in lab and is currently being analyzed.
- During the initial TO15 analysis of the samples lab dups (LDs) were performed for 4 samples, A2, Field Blank, GMW-1, and G4. All results were well within acceptance criteria for LDs (almost all were <10%D).
- Sample U2 was analyzed as a LD for the chloroprene/Bromochloromethane analysis and met acceptance criteria.
- Samples A1, G-3, and G5-R were analyzed as LDs for the TO14A analysis and met acceptance criteria.

- Humid blanks/system blanks were performed daily to confirm cleanliness of the systems (TO14A & TO15) prior to sample analysis.
- Dilutions were performed for compounds exceeding the calibration range, all of which confirmed the original assay.
- Data for the Field Blank was confirmed between TO14A & TO15 analysis. This sample was analyzed multiple times to confirm presence of detected analytes.
- Data was compared to previous set of data from April. The Field Blank from the April data set also contained target analytes that were present at levels higher than in the samples.

We have not been able at this time to identify a source of sample contamination in the laboratory, although this was the initial suspicion.

Please advise if there is a time on Tuesday that you would be available to discuss further.

Regards
Bob

Bob Jongleux
URS Corporation
919.461.1242 (o)
919.949.2950 (c)

TABLE 1

TO-15 DATA SUMMARY FOR AMBIENT AIR SAMPLES AT THE LEE'S LANE LANDFILL SAMPLING DATE: 25 SEPTEMBER 2014

	Ambient Air Samples						
Sample ID	A1	A2	U1	U2	R1	R2	R3
Canister ID	1162	1190	1465	1441	1466	1433	1440
Location	ONSITE	ONSITE DUP.	LG&E	LEVY	4423 WILSHIRE	PUTMAN LANE	PUTNAM END
Controller ID	SB-1602	SB-4030	SB-3427	SB-1536	SB-3541	SB-3424	SB-1605
Compound (ppbV)							
Benzene	15.5	12.8	203	39.5	11.8	103	31.3
Methylene chloride	1.22	1.34	1.36	1.27	1.12	1.20	1.11
Toluene	2.95	2.85	22.5	5.97	3.25	9.31	5.05
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND
Xylene (Total)	0.66	0.59	1.27	0.65	0.63	1.18	0.58
Methane (ppmV)	1.89	1.93	2.00	1.94	1.90	1.83	1.86

ND = Non Detect < MDL and < Limit of Quantitation

TABLE 2
LOCAL METEOROLOGICAL DATA
AMBIENT AIR SAMPLES
SAMPLING DATE: 25 SEPTEMBER 2014

Time	Barometric Pressure (in Hg)	Temperature (°F)	Dewpoint (°F)	Wind Direction (from)	Wind Speed (mph)	Observation
7:56 AM	30.29 in	57.0 °F	52.0 °F	Calm	Calm	Partly Cloudy
8:56 AM	30.30 in	60.1 °F	54.0 °F	Calm	Calm	Partly Cloudy
9:56 AM	30.30 in	64.0 °F	54.0 °F	Calm	Calm	Partly Cloudy
10:56 AM	30.30 in	69.1 °F	55.0 °F	Calm	Calm	Partly Cloudy
11:56 AM	30.29 in	73.0 °F	55.0 °F	Calm	Calm	Partly Cloudy
12:56 PM	30.27 in	77.0 °F	53.1 °F	North	6.9 mph	Clear
1:56 PM	30.24 in	80.1 °F	50.0 °F	North	9.2 mph	Clear
2:56 PM	30.22 in	81.0 °F	50.0 °F	NNE	9.2 mph	Clear
3:56 PM	30.21 in	81.0 °F	48.9 °F	North	5.8 mph	Clear
4:56 PM	30.18 in	82.0 °F	48.9 °F	NNW	5.8 mph	Partly Cloudy
5:56 PM	30.18 in	81.0 °F	50.0 °F	North	6.9 mph	Partly Cloudy

Source: National Weather Service, Louisville, Ky. (KSDF)

TABLE 3
TO-15 DATA SUMMARY FOR GAS MONITORING
SAMPLING DATE: 25 SEPTEMBER 2014

	Well Samples									
	G1	G2	G3	G4	G5-L	G5-R	GMW-1	GMW-2	GMW-3	BLANK #1
Canister ID	1431	1191	1460	1415	1438	1459	1420	1424	1437	1434
Controller	SG-001	SG-010	SG-503	SG-002	SG-009	SG-008	SG-510	SG-012	SG-007	NA
Sampling Date	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014
Compound (ppbV)										
Benzene	21.0	0.353	0.151	1.01	8.92	5.25	16.6	4.50	0.154	44.0
Methylene chloride	1.01	1.06	1.06	1.85	1.06	1.15	1.27	1.09	1.15	1.05
Toluene	3.58	0.316	1.97	2.30	1.67	2.02	2.24	0.729	0.276	2.48
Vinyl chloride	0.199	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (Total)	0.79	0.10	0.18	1.72	1.47	0.36	0.92	0.51	ND	0.29
Methane (ppmV)	ND	ND	ND	ND	ND	ND	0.813	1.52	ND	ND

ND = Non Detect < MDL and < Limit of Quantitation

Table 4-A
TO-15 Analytes From Lee's Lane Landfill - LMSD
SAMPLING DATE: 25 SEPTEMBER 2014

	Ambient Air Samples						
Sample ID	A1	A2	U1	U2	R1	R2	R3
Canister ID	1162	1190	1465	1441	1466	1433	1440
Location	ONSITE	ONSITE DUP.	LG&E	LEVY	4423 WILSHIRE	PUTMAN LANE	PUTNAM END
Controller ID	SB-1602	SB-4030	SB-3427	SB-1536	SB-3541	SB-3424	SB-1605
Compound (ppbV)							
1,1,2-Trichlorotrifluoroethane	ND	0.101	ND	0.0992	0.0907	ND	0.0873
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane-d4 (IS) QC [a]	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Acetylene	10.6	10.7	9.40	9.61	13.8	11.0	10.8
Benzene	15.5	12.8	203	39.5	11.8	103	31.3
Bromochloromethane QC [a]	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.102	0.112	0.0982	0.0926	0.0834	0.0918	0.0993
Chloroform	0.119	0.105	ND	0.0895	0.111	0.0963	0.112
Chloromethane	0.979	0.914	0.785	0.655	0.619	0.756	0.619
Chloroprene QC [a]	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.525	0.562	0.547	0.575	0.549	0.563	0.567
Ethylbenzene	0.298	0.256	2.09	0.539	0.260	0.628	0.368
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND
Methane (ppmV)	1.89	1.93	2.00	1.94	1.90	1.83	1.86
Methylene chloride	1.22	1.34	1.36	1.27	1.12	1.20	1.11
Propylene	2.13	1.91	5.78	2.06	1.77	2.62	2.04
Toluene	2.95	2.85	22.5	5.97	3.25	9.31	5.05
Trichlorofluoromethane	0.252	0.265	0.295	0.271	0.263	0.267	0.272
o-Xylene	0.273	0.231	0.463	0.251	0.226	0.424	0.213
m-Xylene & p-Xylene	0.388	0.357	0.807	0.396	0.408	0.753	0.365

[a] QC spiked compound
ND = Non Detect < MDL and < Limit of Quantitation

Table 4-B
TO-15 Analytes From Lee's Lane Landfill - LMSD

SAMPLING DATE: 25 SEPTEMBER 2014

	Well Samples									
Sample ID	G1	G2	G3	G4	G5-L	G5-R	GMW-1	GMW-2	GMW-3	BLANK #1
Canister ID	1431	1191	1460	1415	1438	1459	1420	1424	1437	1434
Controller	SG-001	SG-010	SG-503	SG-002	SG-009	SG-008	SG-510	SG-012	SG-007	NA
Sampling Date	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014
Compound (ppbV)										
1,1,1-Trichloroethane	0.202	1.26	2.50	26.4	0.142	0.527	0.719	0.0860	ND	ND
1,1,2-Trichlorotrifluoroethane	ND	0.0828	ND	ND	0.0898	ND	ND	ND	0.173	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	0.258	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloro-1,1,2,2-tetrafluoroethane	7.92	5.30	0.602	8.89	ND	ND	5.85	0.0937	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane-d4 (IS) QC [a]	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	21.0	0.353	0.151	1.01	8.92	5.25	16.6	4.50	0.154	44.0
Benzyl chloride	ND	ND	ND	ND	ND	ND	0.158	ND	ND	ND
Bromochloromethane QC [a]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	1.019	ND	0.153	ND	0.0890	0.185	ND
Chloroform	5.58	ND	ND	21.4	ND	ND	3.56	0.363	ND	ND
Chloromethane	0.561	0.768	ND	0.734	ND	0.170	0.765	0.661	1.22	0.144
Chloroprene QC [a]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.693	4.53	1.21	5.30	0.528	0.637	1.51	0.548	1.16	ND
Ethylbenzene	0.539	ND	ND	0.222	0.783	0.152	0.484	0.288	ND	0.221
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methane (ppmV)	ND	ND	ND	ND	ND	ND	0.813	1.52	ND	ND
Propylene	6.96	0.790	0.324	0.953	11.4	0.818	3.44	5.91	0.785	26.9
Tetrachloroethene	36.0	7.94	7.32	21.3	0.135	0.341	99.6	13.4	ND	ND
Toluene	3.58	0.316	1.97	2.30	1.67	2.02	2.24	0.729	0.276	2.48
Trichloroethene	0.543	ND	ND	ND	0.248	ND	0.846	ND	ND	ND
Trichlorofluoromethane	0.234	0.934	0.681	1.22	0.357	0.412	0.347	0.299	0.540	ND
Vinyl chloride	0.199	ND	ND	ND	ND	ND	ND	ND	ND	ND

[a] QC spiked compound- PASS indicates that surrogate recovery was within acceptable limits

ND = Non Detect < MDL and < Limit of Quantitation